Signed 8/16/96

4WD-RCRA

SUBJ: Evaluation of Honeywell's status under the RCRIS Corrective Action Environmental Indicator Event Codes (CA725 and CA750)
EPA I.D. Number: FLD 004 104 105

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THRU: Kent Williams
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TO: G. Alan Farmer
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I. PURPOSE OF MEMO

This memo is written to formalize an evaluation of Honeywell's status in relation to the following RCRIS corrective action codes:

1) Human Exposures Controlled Determination (CA725),

2) Groundwater Releases Controlled Determination (CA750).

The applicability of these event codes adheres to the definitions and guidance provided by the Office of Solid Waste (OSW) in the July 29, 1994, memorandum to the Regional Waste Management Division Directors.

Concurrence by the RCRA Branch Chief is required prior to entering these event codes into RCRIS. Your concurrence with the interpretations provided in the following paragraphs and the subsequent recommendations is satisfied by dating and signing above.

II. HUMAN EXPOSURES CONTROLLED DETERMINATION (CA725)

There are three (3) national status codes under CA725. These status codes are:

1) YE Yes, applicable as of this date.

2) NA Previous determination no longer applicable as of this date.

3) NC No control measures necessary.

Region 4 has also added a regional status code to CA725 which tracks initial evaluations in which a determination is made that plausible human exposures to current contamination risks are not controlled. This regional status code is listed as "NO, not applicable as of this date." Use of the regional status code is only applicable during the first CA725 evaluation. Evaluations subsequent to the first evaluation will use the national status codes (i.e., YE, NA and NC) to explain the current status of exposure controls.

Note that the three national status codes for CA725 are based on the entire facility (i.e., the codes are not SWMU specific). Therefore, every area at the facility must meet the definition before a YE, NA or NC status code can be entered for CA725. Similarly, the regional status code, NO, is applicable if plausible human exposures are not controlled in any areas of the facility.

This particular CA725 evaluation is the first evaluation performed by EPA for Honeywell. Because assumptions have to be made as to whether or not human exposures to current media contamination are plausible and, if plausible, whether or not controls are in place to address these plausible exposures, this memo first examines each environmental media (i.e., soil, groundwater, surface water, air) at the entire facility including any offsite contamination emanating from the facility rather than from individual areas or releases. After this independent media by media examination is presented, a final recommendation is offered as to the proper CA725 status code for Honeywell.

The following discussions, interpretations and conclusions on contamination and exposures at the facility are based on the following reference documents: March 14, 1996, Final Confirmatory Sampling Work Plan, April 8, 1996, Final Confirmatory Sampling Report, Personal Communications with Honeywell's Consultant.

III. FACILITY HISTORY AND MEDIA BY MEDIA DISCUSSION OF CONTAMINATION AND THE STATUS OF PLAUSIBLE HUMAN EXPOSURES

FACILITY HISTORY

The Honeywell facility began operating in 1957 at the intersection of U.S. Highway 19 and Ulmerton Road. The facility covers approximately 107 acres. Prior to the construction of the plant in 1957, the area was utilized as farmland. Honeywell manufactures and tests flight controllers, guidance components, chemical detectors and printed circuit boards. Operations at the Honeywell facility generate or did generate the following main wastestreams: freon, nonchlorinated solvents, chlorinated solvents, waste oil, plating wastes and spent metals.

SOIL

Soil at the facility is known to be contaminated with constituent concentrations above relevant action levels. For example, one sample at the Old Dock Drain did contain a chromium concentration of 1,800 ppm. The ingestion action level for chromium is 390 ppm. Sampling at the Old Dock Drain also suggests that a minor release of other metals (e.g., lead, copper, zinc) may also have occurred. The significance of the release identified at the Old Dock Drain is currently being addressed under the RCRA Facility Investigation (RFI) process. Because the location of the release is underneath asphalt and within a facility whose land use is industrial/commercial, EPA believes that the release and the single detection of chromium above 390 ppm does not represent a threat to human health. If the RFI process finds this release to be more widespread or more serious, then this position will have to be reevaluated.

Currently, the main environmental concern at Honeywell is a past drainpipe leak at the Metal Finish Area which resulted in a release of solvents. The Metal Finish Area is located in the southern portion of Building #4. Building #4 is a large building, approximately 375,000 square feet, located in the middle of the facility. Soil sampling, which occurred during monitoring well installation within Building #4, has not indicated any volatile organic soil contamination above relevant action levels. However, groundwater contamination is present underneath Building #4 (see the section on groundwater contamination).

In summary, although some soil contamination has been detected at the Old Dock Drain, EPA believes that any plausible human exposures to this minor contamination are controlled by the limitations placed on humans easily encountering soil beneath a layer of asphalt. Furthermore, although no soil contamination has been discovered at the Metal Finish Area, if any soil contamination from this unit does exist, it is also underneath a building and not easily available for human contact except during environmental investigations. **Therefore, human exposures to contaminated soil are controlled or do not exist.**

GROUNDWATER

The main environmental concern at Honeywell is a past drainpipe leak at the Metal Finish Area. The leak released solvents into the environment which remain at concentrations above relevant action levels. The areal extent of the plume is approximately 1,000 feet long and 600 feet wide with the highest reported concentrations located underneath Building #4. The groundwater plume is characterized by high levels of trichloroethylene (TCE; 198,087 ppb; MCL - 5 ppb), cis 1,2-

dichloroethene (1,2-DCE: 740 ppb; MCL - 70 ppb), 1,1-dichloroethene (1,1-DCE; 19.4 ppb; MCL - 7 ppb), 1,2-dichloroethene (1,2-DCE; 12,809 ppb; Region 3 risk number - 61 ppb) and vinyl chloride (2,000 ppb; MCL - 2 ppb). Chromium (750 ppm; MCL 100 ppm) may also be a constituent of concern; however, further RFI sampling is necessary to determine if the chromium concentrations detected in the past are real or a relic of turbidity during sampling.

The current conceptual model is that the groundwater plume is contained onsite within the sand and clayey silts which form the Surficial Aquifer (i.e., the upper 40 feet below ground surface). This working model is based in part on the following points: 1. Deep wells in the Surficial Aquifer suggest that vertical migration has not been the main direction of contaminant migration. However, the ongoing RFI process is designed to verify the actual extent of the vertical contamination. 2. A very stiff, fine-grained overconsolidated or cemented material is encountered at approximately 40 feet below land surface. This clay could impede or slow vertical migration of contaminants to lower aquifers. 3. A newly installed and sampled downgradient monitoring well placed on the northwest side of Building #4 and along Honeywell's property boundary has indicated no groundwater contamination.

Because there are no potable water supply wells onsite, it is EPA's opinion that no onsite human receptors are present. For a discussion on groundwater/surface water connection, please see the following summary on surface water.

Based on the above discussion, current human exposures to the onsite groundwater contamination are controlled because there are no drinking water wells within the facility that could extract the contaminated groundwater.

SURFACE WATER

Migration of groundwater contamination associated with the Metal Finish Area has contaminated surface water at concentrations above relevant action levels. Specifically, some groundwater contamination is discharging into an onsite stormwater drainage ditch system located to the northwest of Building #4. The detections of TCE within the ditch system are located directly next to Building #4. The two detections of TCE are 26 ppb and 18 ppb; the MCL for TCE is 5 ppb. Surface water samples collected "downstream" of Building #4 and near where the stormwater exits the facility are free of any detectable contamination. Therefore, there is no known offsite transport of contaminated surface water at this time.

Due to the geographically small area of surface water contamination and the fact that the surface water is in an onsite

drainage ditch, EPA believes that human exposure to this contamination is unlikely and, if occurring, infrequent and insignificant. For example, the manufacturing activities performed at the facility do not require employee contact with the stormwater ditch. Furthermore, the facility is fenced and access controlled such that only trained employees may come in contact with the ditch and its potential contamination. For example, the only reasonable employee contact with the ditch would be as a result of maintenance activities, which by nature are short in duration and infrequent.

Based on the above discussion, current human exposures to surface water contamination are controlled or do not exist. If the more extensive sampling during the RFI encounters more significant contamination, then this surface water evaluation will have to be reassessed.

AIR

Releases to air from soil, groundwater and/or surface water contaminated by SWMUs at the facility is not known to be occurring at concentrations above relevant action levels or not expected to be occurring above relevant action levels. **Therefore, there is no human exposure to contamination via an air route.**

IV. STATUS CODE RECOMMENDATION FOR CA725:

As explained more fully in Section III, human exposures to groundwater contamination is prevented by the fact that the contaminated groundwater is currently located onsite and no onsite drinking water wells exist or are planned, exposure to the minor surface water contamination is deemed to be infrequent, and exposure to the minor soil contamination is deemed unlikely due to it location under asphalt or buildings. Therefore, it is recommended that CA725 YE be entered into RCRIS.

V. GROUNDWATER RELEASES CONTROLLED DETERMINATION (CA750)

There are three (3) status codes listed under CA750:

1) YE Yes, applicable as of this date.

2) NA Previous determination no longer applicable as of this date.

3) NR No releases to groundwater.

Region 4 has also added an additional status code which tracks the initial evaluations in which a determination is made

that groundwater releases are not controlled. This regional status code is listed as "NO, not applicable as of this date." Use of the regional status code is only applicable in the first CA750 evaluation. Evaluations subsequent to the first evaluation will use the national status codes (i.e., YE, NA and NR) to explain the current status of groundwater control.

Note that the three national status codes for CA750 are designed to measure the adequacy of actively or passively (i.e., natural attenuation) controlling the physical movement of groundwater contaminated with hazardous constituents above relevant action levels. The designated boundary (e.g., the facility boundary, a line upgradient of receptors, the leading edge of the plume as defined by levels above action levels or cleanup standards, etc.) is the point where the success or failure of controlling the migration of hazardous constituents is measured. Every contaminated area at the facility must be evaluated and found to have the migration of contaminated groundwater controlled before a "YE" status code can be entered. Similarly, the regional status code is applicable if contaminated groundwater is not controlled in any area(s) of the facility.

This evaluation for CA750 is the first formal evaluation performed for Honeywell. Please note that CA750 is based on the adequate control of **all** contaminated groundwater at the facility.

The following discussions, interpretations and conclusions on contaminated groundwater at the facility are based on the following reference documents: March 14, 1996, Final Confirmatory Sampling Work Plan, April 8, 1996, Final Confirmatory Sampling Report, Personal Communications with Honeywell's Consultant.

VI. STATUS CODE RECOMMENDATION FOR CA750:

Based on data contained in the documents referenced in Section V and summarized in the groundwater portion of Section III, releases from the Metal Finish Area have contaminated groundwater at concentrations above relevant action levels. Although the groundwater is contaminated above relevant action levels, measures have not been implemented to control the physical migration of this groundwater contamination. Because groundwater contamination is not controlled and this is the first evaluation at this facility, it is recommended that CA750 NO be entered into RCRIS.

Before EPA imposed the RFI, the facility voluntarily pursued RFI characterization of the groundwater release. Because this characterization has occurred prior to any official RFI Work Plan approval by EPA, the RFI Work Plan which is due in August 1996 will contain a rather complete section describing the current

extent of contamination and identifying any remaining data gaps (i.e., the work plan will contain RFI Report qualities). Through phone conversations with Honeywell's consultant, EPA is aware of the fact that remedial alternatives are being internally evaluated by Honeywell and its consultant. Based on the soon to be submitted RFI Work Plan, EPA will weight the merits of imposing Interim Measures for the groundwater contamination.